

WHAT IS CLAIMED IS:

1. A pattern forming method, comprising image-wise forming, on a surface of a substrate, a region having an ability to initiate polymerization, forming a graft polymer on the region by atom transfer radical polymerization to form a hydrophilic/hydrophobic pattern which includes regions having a graft polymer formed and regions having no graft polymer formed, and applying a substance to the hydrophilic or hydrophobic region of the hydrophilic/hydrophobic pattern.

2. A pattern forming method according to claim 1, wherein the region having an ability to initiate polymerization is formed by fixing a polymerization initiator thereon and the graft polymer contains a monomer having hydrophilicity/hydrophobicity opposite to the hydrophilicity/hydrophobicity of the polymerization initiator.

3. A pattern forming method according to claim 1, wherein the substance is a colorant.

4. A pattern forming method according to claim 3, wherein the graft polymer contains a monomer having hydrophilicity/hydrophobicity opposite to the hydrophilicity/hydrophobicity of the polymerization initiator.

5. A pattern forming method according to claim 3, wherein the colorant is a dye.

6. A pattern forming method according to claim 5, wherein the dye has a charge opposite to a charge of the graft polymer.

7. A pattern forming method according to claim 1, wherein the substance is fine particles.

8. A pattern forming method according to claim 7, wherein the graft polymer has a polar group.

9. A pattern forming method according to claim 7, wherein the fine particles each have a charge opposite to a charge of the graft polymer.

10. A pattern forming method according to claim 1, wherein the substance is a conductive material.

11. A pattern forming method according to claim 10, wherein the graft polymer has a polar group.

12. A pattern forming method according to claim 10, wherein the conductive material is fine conductive particles each having a charge opposite to that of the graft polymer.

13. A pattern forming method according to claim 10, wherein the conductive material is a conductive polymer comprising a conductive

monomer which can be adsorbed by a functional group of the graft polymer through ionic force.

14. A substance adherence pattern material prepared by image-wise forming, on a surface of a substrate, a region having an ability to initiate polymerization, by forming a graft polymer on the region by atom transfer radical polymerization, and by applying a substance to the graft polymer.

15. A substance adherence pattern material according to claim 14, wherein the region having an ability to initiate polymerization is formed by fixing a polymerization initiator thereon and the graft polymer contains a monomer having hydrophilicity/hydrophobicity opposite to the hydrophilicity/hydrophobicity of the polymerization initiator.

16. A substance adherence pattern material according to claim 14, wherein the substance is a colorant.

17. A substance adherence pattern material according to claim 14, wherein the substance is fine particles.

18. A substance adherence pattern material according to claim 17, wherein the graft polymer has a polar group.

19. A substance adherence pattern material according to claim 17, wherein the fine particles each have a charge opposite to that of the graft

polymer.

20. A substance adherence pattern material according to claim 14, wherein the substance is a conductive material.

21. A substance adherence pattern material according to claim 20, wherein the graft polymer has a polar group.

22. A substance adherence pattern material according to claim 20, wherein the conductive material is fine conductive particles having a charge opposite to that of the graft polymer.

23. A substance adherence pattern material according to claim 20, wherein the conductive material is a conductive polymer comprising a conductive monomer which can be adsorbed by a functional group of the graft polymer through ionic force.